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ABSTRACT

A response to United States Senator George McGovern's call for congressional legislation to establish an independent national commission on literacy is necessary. Two considerations that must be taken into account by any individual, group, or commission addressing issues of criteria for competency in literacy are: (1) literacy competence is a relationship between the specific demands of a situation and the variety of literacy and nonliteracy strategies available to any individual; and (2) a tendency exists to confuse the symbolic attributes of literacy with actual literacy demands. Side issues that must be understood include the fact that trends from the SAT tests are not relative to basic literacy, there is not comparable educational data from many other nations, and available research does not support the fact of a decline in basic skills. Other issues that must be explored include the difference between functional illiteracy and functional competency and the possibility that illiteracy is merely one aspect of a larger problem of poverty or discrimination. If a national literacy commission is to be instituted the project must be clearly conceived. Literacy should be viewed as a relationship between demand and ability and the focus should be on how well individuals are performing their jobs and life-tasks, and the extent to which literacy ability influences performance must be determined. (MKM)

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NATIONAL LITERACY COMMISSIONS AND FUNCTIONAL LITERACY: A STATUS REPORT

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A RESPONSE TO SENATOR MCGOVERN'S LITERACY DAY PROPOSAL

On September 8, 1978, International Literacy Day, Senator George McGovern called for congressional legislation to establish an Independent National Commission on literacy. McGovern outlined five specific responsibilities for the proposed commission. (McGovern, 1978) These responsibilities included:

1. Independent review and study of literacy related problems. "The current educational establishment faces an inherent conflict of interests in attempting to address the problem of illiteracy;"
2. An examination of "the possibility, the desirability, and the content of competency standards;"
3. An evaluation of current programs to explore possible innovations to raise literacy levels through classroom instruction. This would include an investigation of present federal and state programs with particular emphasis on the strengths and weaknesses of Title I programs;
4. Consideration of alternative solutions outside the traditional school setting such as the teaching of reading and job skills in unison rather than separately; and
5. Analyzing the effectiveness of current federal assistance in combating illiteracy and the effect of different formulas to distribute such funds.

These proposals were made within the context of a Literacy Day statement replete with moving rhetoric designed to make a case for an Independent National Commission on literacy by highlighting what McGovern apparently sees as the large scale failure of organized education. McGovern blended together stories of malfeasance, statements from program directors, comparisons with school achievement in other countries, passing reference to S.A.T. scores, and illiteracy percentages from various studies. The final impression created, at least for these authors, was one of crisis and at least the hint of potential cover-up on the parts of existing educational agencies. A clear call was made by McGovern for establishing literacy minimum competency criteria on a national level. He states, "Therefore, the first step toward ending illiteracy is the most basic one. We lack an operational definition of literacy that sets goals and standards that American education must meet... the federal government should formulate optional national criteria for competency testing." (McGovern, 1978).

Essential Considerations

Any individual, group, or commission addressing issues of criteria for competency in literacy must take into account two essential considerations. The first consideration is that literacy competence, whether it be minimum, functional, or maximum, is a relationship between the specific demands of a situation and the variety of literacy and non-literacy strategies available to any individual. Standards have been proposed, but invariably have been grossly inadequate in face of the fact that literacy competence is a variable relationship which changes from situation to situation, from time to time, and even from

individual to individual within the same situation. An experienced craftsman who is observant and interested in his job may be able to ignore written directions most of the time while an unobservant craftsman may need to read directions, as might an individual new to a job and without access to an experienced authority. A second consideration which must be taken into account by those drafting literacy criteria is the tendency to confuse the symbolic attributes of literacy with actual literacy demands. The likelihood of an individual to succeed or fail is often difficult to predict. Traditionally, literacy of a particular level has been used, often falsely, as a symbolic shortcut for making evaluations about individuals.

Literacy as Relationship

John Bormuth (1975) has best articulated the concept of functional literacy as relationship rather than as criteria. In its broadest sense, literacy can be defined as the ability to read (and write) and appropriately respond to all possible reading (and writing) tasks. This is an abstract extreme ideal, of course. A less extreme abstraction offered earlier by Bormuth (1973) is that a literate person is someone who could perform well enough to obtain maximum value from the materials he needed to read. In each case literacy is defined by relationship to an abstraction or an ideal. Attempts to establish concrete operationalized standards such as a 12th grade reading level (Carroll and Chall, 1975) or the ability to fill out a set of forms and read a particular set of want-ads usually fail because they cannot account for the variable and constantly changing aspects of literacy. Bormuth (1975) points out that the concept of literacy is generally approached as if it were a

product of nature -- like the growth of corn. A naturalist can study the growth of corn, can measure its aspects, without reference to some ideal growth pattern. Literacy, however, cannot be isolated and examined in such a natural state. The concept of literacy is automatically tied to some ideal. The meaning of statements about literacy is derived from the relationship to that ideal. Thus if we say that 25% of the citizens of a community are functionally illiterate we are not describing anyone's actual abilities. We are instead describing the relationship between what they are expected to do and what they are able to do. Arbitrary criteria of the ability to successfully complete certain tasks can be offered as an alternative approach, but the criteria provide very little useful information about functional literacy in the lives of most people.

Literacy as Symbol

In addition to literacy as relationship, policy formulators must take into account literacy as symbol. Often the ability to read and write is used as a short cut criteria for making complex judgments about an individual's competence and worth. Cook (1978) identifies the symbolic use made of literacy in this country at the turn of the century. Henry Cabot Lodge, an active leader in the Immigration Restriction League, proposed a bill in 1896 which would restrict immigration to those people who could read and write in their own or some other language. Symbolically, at least, literacy showed proof of merit; illiteracy showed proof that the immigrant did not meet the standards of "the mental and moral qualities which make what we call our race" (quote of Lodge from Cook, p.2). Throughout the next six decades literacy as symbol was used

as a decision-making criteria in proposed legislation and policy on immigration, voter qualification, and job access. Perhaps even more often, literacy as symbol has been used as the undergirding for rationalizations. For example, Newman (1978) presents convincing evidence that the "credentials" of education (i.e., a high school or college diploma), while acquired by more and more blacks, have not necessarily led to increased job and economic opportunities for blacks; a white high school drop-out has a better chance of getting a job than does a black high school graduate.

McGovern's Literacy Day speech indicates that the symbolic use of literacy is still an issue. McGovern (1978) states that Adolf Slaughter of the District of Columbia Manpower Department "has graphically explained the educational roots of this unemployment rate: 'most of these unemployed don't have the educational skills to impress an employer.'" The point here is not to dismiss education and the ability to read and write as important. Such skills are of high importance. The point is that we, in the United States, have a long standing tradition of using literacy to symbolize a host of judgments which may not be true. For example, Newman (1978) reports that West German industry is able to function efficiently using illiterate immigrants from Pakistan to perform jobs and tasks identified as requiring a fair degree of literacy in this country. The use of literacy as symbol for making judgments has been often abused and used as a screen in this country. Commissions and policy makers need to avoid the traps of our past.

Confounding Side Issues

As if the difficulty of arriving at an understanding of functional

literacy were not enough, several side issues which are not directly related tend to confound the public discussion of functional literacy. These issues revolve mainly around publicity about S.A.T. scores and about studies which compare educational data from several different nations. Repeated media coverage, for example, has assumed, implied, or baldly stated a relationship between fluctuations in S.A.T. scores and basic reading skills. S.A.T. scores do not measure basic reading by any stretch of the imagination. The tests call for critical reading/thinking skills such as the ability to make inferences and synthesize concepts. Most research has demonstrated these abilities to be separable from basic literal comprehension. McGovern's summary statement about S.A.T. score fluctuations and drops is that "there is no certain explanation (for S.A.T. score dropping), but there is absolutely no excuse. Every high school graduate in this country should have at least a basic knowledge of the 3 R's." (McGovern, 1978). McGovern may be right about our priorities for high school graduates, but S.A.T. scores ought not to be mistakenly used as support for such statements.

The same sort of issue clouding occurs when cross cultural studies are made part of the public discussion. Ever since the launching of Sputnik in 1957, politicians desiring to make policy changes have tossed into speeches comparisons of American students to other students. Such comparisons are almost always misleading since very few countries have a secondary school education program that serves a population as extensive as the program in the United States. In most countries with which comparisons are made, the average score of U.S. students (75 to 80 percent of all the youth in the country) is compared to the average score of whatever smaller percentage of foreign students are privileged

to receive secondary school education. When the very top percentages of national scores are compared, U.S. students compete favorably. Comparisons of total populations have, thus far, been unavailable in spite of the impressions created in speeches and in the media.

State of the Functional Literacy Problem

Defining, assessing, and then promoting functional literacy have also posed great difficulties for researchers and educators since the term was first used in World War II to describe individuals who could not read well enough to understand and follow basic military instructions. Recent assessments of functional illiteracy have produced widely varying figures in estimates of the extent of the problem. Depending upon the particular assessment, and the methods of analysis, millions of Americans either are, or are not, considered functionally illiterate. Estimates of illiteracy have ranged from 1 to 20 percent of the non-institutionalized population. It is unfortunate that the media and many legislators have highlighted the higher estimates and have tended to dismiss the lower as attempts at apologizing for the schools. The fact is that neither the high nor the low estimates reflect accurately the extent of functional illiteracy. The vast differences among results reflect several fundamental problems related to functional literacy, namely:

* there is a lack of agreement as to what functional literacy is; consequently, there is no agreement about how to measure it.
* there are no established standards that can meaningfully be used to determine if someone has passed a

functional literacy test;

* there is no conclusive evidence that literacy levels or demands are either rising or falling in our society. If demands are rising, then increases in the numbers of functional illiterates are to be expected; if demands are falling, then there may be no need to stress functional literacy.
* there is no evidence that functional literacy and functional competency (e.g. ability to work), are synonymous, or even highly correlated; yet some researchers, reporters, and legistators assume this correlation in reaching their conclusions.

These four issues have not been resolved, and they must be addressed adequately before additional efforts at tackling the problem of functional illiteracy are undertaken. They must be examined before sentence is pronounced on the entire educational system of this country.

What is Functional Literacy?

The differences in results of recent functional literacy assessments reflect partly differences in definition.

- The Census Bureau - which provides the only comparable data across time - has traditionally defined literacy as the ability to read and write a simple message in any language. (U.S. Bureau of the Census, 1971). Relying on self-report only, the Census Bureau reported an illiteracy rate of 1% in 1969 (3% for Blacks), up from 20% (79% for Blacks) in 1870.

- UNESCO, the Census Bureau, and the U.S. Army have defined a functional literate as someone who has completed between four to six years of schooling (Fisher, 1978; Harman, 1970; Corder, 1971). Using the criteria of five years of schooling, in 1970, 95.6% of the population was literate; the figure in 1940 was only 86.3%.
- The Brief Test of Literacy, administered by the National Health Survey (Vogt, 1970), used a standard reading comprehension test and defined functional literacy as the attainment of a fourth grade equivalency score. Using this definition, 95.2% of the non-institutionalized youth aged 12 to 17, were literate.
- The Mini-Assessment of Functional Literacy, the Survival Literacy Study, the Adult Performance Level Project, the Adult Functional Reading Study, and Project REALISTIC all defined functional literacy, broadly, as the ability to successfully perform reading tasks deemed necessary for 'survival' in the society (or in a job). While this seems to be a reasonable definition, and while the researchers apparently agreed on the basic definition, they still came up with varying results. Agreement did not (and possibly cannot) exist on two basic definitional questions: 1) Which reading tasks are actually necessary? (Should the long 1040 form be included; should rental agreements, or advertisements, or traffic signs?); and 2) At what point, and how, does someone show that they are able to handle the reading tasks well enough to "survive"? It is not

> enough to define functional literacy as sufficient reading skills to "survive"; the tasks chosen, and the criteria for passing chosen, are an integral part of the definition. By varying the criteria for passing, it is possible to come up with almost any level of illiteracy - from less than one to over 50 percent of the population.

When is Someone Functionally Literate?

Differences in results of functional literacy measures result from differences in the ways it is determined if someone has "passed." In order to determine that, test items need to be chosen and a standard has to be defined. But what items should be included? What standard can be used? Is a worker who cannot read one line of a set of safety instructions functionally illiterate? If so, is not a welder who misreads specifications, or a surgeon who does not keep up with new medical terminology also functionally illiterate? Clearly, and especially in the job domain, literacy is variable (Bormuth, 1975) and must be viewed as continuously distributed (Kirsch and Guthrie, 1978). A continuum really has no representative tasks and no norm, and so setting a "passing" level has to be arbitrary as best, and meaningless at worst.

Functional literacy assessments have generally attempted to deal with this problem by concentrating on reading and writing tasks that, supposedly, all (or most) Americans need to be able to accomplish. Application forms, want-ads, and safety instructions are examples of these types of tasks. Certain tasks are chosen from those that have been identified and put into some type of test form. The test results are then analyzed using some criteria; the criteria vary greatly across assessments. Results are then

computed and reported. There are several types of important decisions that need to go into the construction, scoring and criteria-selection for functional literacy tests. Unfortunately, there is no agreed-upon method of reaching any of the decisions. Thus, the functional literacy tests all differ in 1) choosing representative tasks; 2) choosing methods of testing ability on the tasks; 3) choosing criteria for passing the tasks and the test; and 4) choosing a logical way to report the results. Each of these decisions affects the results of the test. It becomes difficult, then, to accept any of the measures as being particularly accurate in assessing functional literacy; the measures assess individual performance on certain tasks using certain criteria only. A number of researchers have elaborated on these problems (Kirsch and Guthrie, 1978; Fisher, 1978; Griffith and Cervero, 1977; Diehl, 1978). To get some idea of the different ways tasks, tests and criteria were determined, consider the major assessments.

- The Adult Performance Level Project (APL, Northcutt, 1975) used a number of methods, including interviews, reviews of research and expert opinion in arriving at tasks that could be called necessary for functional competence. Test items were constructed using these tasks; only items that were positively correlated with three measures of success - education, job status, and income - were included on the final test instruments, Criteria for passing were based on whether scores fell into the range of scores of "Proficient adults" (APL_3), "Functional adults" (APL_2) or "Adults who function with difficulty" (APL_1). The three groups were also based on income, education and job status. (For a

description of how this choice of criteria may have influenced the results, see Fisher, 1978). Using this assessment, APL determined that about 20% of the population fell into APL_1, and were functionally incompetent.

- The Adult Functional Reading Study (Murphy, 1975) was preceded by a survey to find out what Americans read (Sharon, 1973). This survey was used in determining the tasks that could be considered "representative." Because of the difficulty in setting passing criteria, the results for the study were reported on an item-by-item basis. Average item scores were also reported for age and education variables.
- The Mini-Assessment of Functional Literacy (MAFL, Gadway and Wilson, 1974), conducted by the National Assessment of Educational Progress, used items that had previously been used on the 1971 national assessment. Specifically, items were chosen that represented typical formats and called for typical reading behaviors. Comparisons were made between scores on the 1971 and 1974 samples, using three methods of scoring. Although the items chosen may not have been as representative as other studies, the MAFL had the advantage of being able to make a comparison across time. Results showed that all groups gained between 1971 to 1974, with a national gain of 2 percentage points.
- The Survival Literacy Study (Louis Harris and Associates, 1970), the first major study to look at functional literacy, used five application forms as representative tasks, and set percentages of correct responses as the criterion for

passing. A total of 13 per cent of the sample answered less than 90% of the items correctly.

- Project REALISTIC (Sticht et.al., 1971) examined functional literacy in the context of military jobs. Using measures of readability, reading proficiency, and job proficiency, Sticht attempted to determine what reading level was needed to actually function adequately on particular jobs. While difficulties arose using the various measures, the idea of examining the actual reading materials of individuals, and their abilities to handle the material, may hold the most promise for meaningful assessments of functional literacy.

The setting of a standard for assessing functional literacy clearly poses theoretical and practical problems. Because "representative tasks" differed across assessments and, more importantly, because criteria for "passing" differed, it is possible to take the results of any one study, reanalyze them in an equally logical way, and arrive at vastly different conclusions. This is what Fisher (1978) did. His reanalysis of the more extreme previous data suggest the problem may not be as great as previously claimed. He has been subsequently described by some as an apologist. The point is, that by choosing certain tasks and certain criteria, a researcher could conceivably find almost any percentage of the population functionally illiterate.

The various functional reading tests, then, show us how many people answered items about certain representative reading tasks within a somewhat arbitrary criterion. No single test tells us the true extent - or nature - of functional illiteracy.

How Bad is it Really?

There seems to be a general feeling - fueled in part by media, by some legislators, and by declining S.A.T. scores - that we are losing the war against illiteracy. Available research does not support this view. We could say that functional literacy levels are declining if:

reading achievement is declining and/or

reading demands are increasing.

Are either of these conditions occuring? The decline in S.A.T. scores is often cited as evidence of falling reading achievement. Unfortunately, the S.A.T. is not a reading achievement test; it is designed to predict success in college. (See Farr, 1978 for a description of the misuses of test interpretations). There are, however, other indications, that may be more valid, that reading might be declining. McGovern points out a number of these, and they should be of great concern to educators. At the same time, recent research has indicated that reading achievement may not be declining at all, and may be increasing. The MAFL, for example, found a gain of two percentage points between 1971 to 1974 on its test of functional literacy. Farr, Fay, and Negley (1978) examined over 50,000 high school students with the same reading test used 30 years previously. Even though the 10th graders tested in the 70's were younger, and included 10% of the population that would have dropped out of school three decades earlier, the 70's scores showed no declines and some gains. Tuinman, Rowls and Farr (1976) in an overview of "then and now" studies note a general improvement in literacy since the turn of the century.

It is often assumed that literacy demands are increasing in our rapidly changing society. While this assumption appears logical and is accepted as given by many researchers, educators and legislators, we do

not seem to have conclusive evidence that it is true. Efforts are being made to simplify forms; technology may be eliminating the need for reading and writing (and creating human errors) on some jobs; access to alternative sources of information - TV, radio, telephone - may have cut down further on the need to read and write. We do not presently know the overall effect of technological changes; we do not know if our children will need to be more literate than we are.

How bad is it really? Recent research suggest that we seem to be making some progress. Much more progress is needed, perhaps - especially if literacy demands are found to be rising. A larger percentage of students remain in school for a longer period, and their needs must be met, but we must not make the alarmist mistake of settling for a piecemeal understanding of so important an issue.

Functional Illiteracy and Competency

An important distinction must be made between the concepts of "functional literacy" and "functional competency" (Kirsch and Guthrie, 1978). A worker, for example, may be functionally illiterate (i.e., he cannot read materials deemed necessary to do a task) and yet he may still be competent (i.e., he accomplished the task anyway because of common sense, previous experience, or compensatory mechanisms). Equating functional literacy and competency, as is often done in discussions of this topic, is incorrect, and serves to incorrectly label individuals. While it may be that many illiterates are also incompetent in some areas, there is little research to support equating the two. In fact, in one of the few studies to address this question, Sticht (1975) found a low correlation (.30 to .40) between

reading ability and on-the-job performance tests. This means reading ability and job competency had only a shared variance of between 9 and 16 percent.

The equating of illiteracy with incompetency creates a symbolic meaning for literacy (i.e., literacy equals competency) which is actually distinct from its utilitarian meaning. This symbolic association can be seen in Sen. McGovern's statement: "They (the functional illiterates) swell our unemployment lines; they fill our prisons and our drug treatment centers..." Such an implied casual relationship is misleading and serves to mask what may be the real problem: that unequal opportunities, whether in education, in jobs, or in meeting basic life needs, are all relegated to the same groups of people. Newman (1978) points out that educational attainment, which has risen for blacks, has not meant increased job opportunities. If literacy caused employment, one would expect more employment for blacks. This runs contrary to Newman's (1978) findings cited earlier. It is possible that illiteracy is higher among unemployed, among convicts, and among addicts than among the rest of the population, not because illiteracy caused these problems, as McGovern implies, but because these problems, perhaps for socio-enonomic reasons, affect the same groups of people. Thus, it must be seen that illiteracy is merely one aspect of a larger problem, and it is incorrect to assume that a massive war on illiteracy will erase the larger problem - or even erase illiteracy.

The other aspects of the problem must be addressed at the same time that literacy is promoted. It is partly for this reason that literacy campaigns that combine reading skills with job skills seem to be most successful. These programs are not only teaching literacy skills, but

they are showing a way out of the larger socio-economic problem in which illiteracy is entwined.

Conclusion

A National Commission on Literacy could have a significant impact on this nation. Its impact will be greatest if it does not promote functional illiteracy in isolation, without dealing with the other aspects of the same problem. The responsibilities McGovern has outlined for such a commission have the potential for being quite useful -- especially if the commission can separate itself from the rhetoric and various misassumptions which often cloud real issues.

The first commission responsibility outlined by McGovern was to establish an independent review of literacy related problems. The goal is reasonable, but every effort must be made to avoid a witch hunt which introduces more arbitrary figures about illiteracy into the public discussion. One method of accomplishing this would be to focus on the concepts of functional literacy and functional competency at all levels of society. Lets try to determine how well individuals are performing their jobs and life-tasks and then determine the extent to which literacy ability influences performances. At all costs, the traditional trap of using literacy as a symbol should be avoided.

McGovern's second commission responsibility is an examination of "the possibility, the desirability, and the content of competency standards." Remarks made later in his Literacy Day speech suggest a strong desire to establish national competency standards. Such standards would add one more arbitrary set of statistics to the public discussion. Their main advantage would be to chart changes over time, but even that

advantage would be minimized as literacy demands changed. Charting the ability of individuals to succeed with the literacy demands encountered in each occupation and area of life would be a more worthwhile goal. The work of Sticht (1971, 1975) with the armed services provides a model for civilian life. Such an assessment would, at least, provide a picture of strengths and weaknesses in relation to how well individuals cope with the literacy demands of various jobs. Are lawyers proportionately better prepared for their roles than are auto mechanics?

McGovern's third and fourth commission responsibilities suggest an evaluation of current programs and a search for alternative solutions to literacy problems. Those goals deserve strong endorsement. Approaches to which the commission should pay particular heed are approaches that address more than simple literacy. Programs need to interrelate economic, social, and occupational considerations if success is to ensue. To do less risks, once again, viewing literacy as a symbol rather than as one of several strategies for success.

McGovern's last suggested commission responsibility calls for the analysis of the effectiveness of current federal assistance in combating illiteracy and the effect of different formulas on distribution of such funds. Again the suggestion merits endorsement, but endorsement with a word of caution. In education, a straight cost/effectiveness approach flies in the face of repeated research results indicating some groups require more attention in order to make small but important gains. A simple slashing of funds for programs that don't demonstrate spectacular gains would, in all likelihood, create a quite unhealthy situation. Those most in need of attention often show the least gain on criterion measures. Program planners would be faced with the prospect of abandoning

such individuals or giving in to the temptation to inflate test score gains. Neither alternative is a good one.

In summary, then, a National Literacy Commission has been proposed. The idea has merit, but must be clearly conceived. This implies seeing literacy as a relationship between demand and ability, rather than as a symbol representing an individual's quality. There are a wide variety of statistics currently available on functional literacy. These must be seen as useful indicators of specific abilities but still basically as arbitrary assessments. Several indications actually suggest improved ability on the parts of our students. Alarmist charges must be examined, but carefully for the truth of the charges and not the rhetorical impact.

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